DOCUMENT RESUME

ED 246 665 FL 014 449

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TITLE The Materials Development Problem in Planned Language Modernization Programs.
PUB DATE [84]
NOTE 20p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Educational Policy; English (Second Language); *Instructional Materials; *Language Planning; *Language Standardization; *Language Teachers; Malayo Polynesian Languages; *Material Development; Program Effectiveness; Program Evaluation; Teacher Education
IDENTIFIERS *Malaysia

ABSTRACT

Implementation of a language modernization process such as one occurring in the Pacific basin is as important as the policy development behind it. Three critical factors in implementation are teacher training, the development of good teaching materials, and a plan for evaluating program effectiveness. Attempts to meet the need for good language-based teaching materials illustrate the difficulties and possible solutions in a language modernization situation. Literacy materials begin to address the problem, but are often developed for adults and are not suitable for school instruction. Vernacular literacy materials have been developed in some cases, but no complete program of study is now available. Researchers have developed guidelines for literacy material design based on recent experience with literacy curriculum. When producing content area materials, authors must first use creative processes rather than consulting existing materials to avoid duplication. In addition, care must be taken to integrate effective but possibly alien instructional strategies with vernacular material, a process in which the skills of language planners and linguists are needed. (MSE)

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# THE MATERIALS DEVELOPMENT PROBLEM IN PLANNED LANGUAGE MODERNIZATION PROGRAMS[1]

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## ABSTRACT

Language modernization undertaken on a planned basis involves a number of aspects including planners, plans, and planning. There has been a tendency for language planning studies to focus on planners and particularly their plans without giving adequate thought to how the planning, that is, the implementation and evaluation of a language plan, will be carried out. These more practical aspects are often left to the educational system to implement. This lack of co-ordination across the entire planning process puts strains on the educational system in two areas. First, there is the question of how to get adequately trained language teachers. Second, there is the problem of obtaining and/or creating language teaching materials. The issues are of course interrelated. The purpose of this paper is to focus on one of the problems, the materials development question, using examples from the Pacific basin region, to see what difficulties and possible solutions there are to be found.

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# THE MATERIALS DEVELOPMENT PROBLEM IN PLANNED LANGUAGE MODERNIZATION PROGRAMS

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## Introduction[2]

We live in an age where rapid physical and ideational change and development is occuring all around us. Language is no exception. The mass media and popular music are powerful medium for rapid lexical and phonological change. Sesame Street has introduced children around the world to "zee" instead of "zed" and to "zero" instead of "nought", while television programs like Diff'rent Strokes for Black English and Dallas for the Southern drawl provide popular examples of American regional language variation. Although the "blessing" of television has not yet reached Papua New Guinea, I'm sure each of you can think of comparable local examples. Whether these changes will endure is of course far from certain. However, people now as never before are becoming more aware of language variation and change.

Linguistic change is of course not new; only the speed with which it is occuring and is being accepted, is new. Languages are not and have never been a static product, but have been and still are more akin to a developing process. Such development occurs through processes like borrowing from other languages, stretching words to accomodate new meanings, coining new words, or adopting new styles of writing. Traditionally, these modernization processes have occurred spontaneously in response to new linguistic demands, and these linguistic products have taken long periods of time to find linguistic and social acceptance.

However, the traditional patterns of language modernization, particularly the time constraints, are no longer adequate for most language development situations. Many newly independent countries have not been able to wait for either spontaneous development or long term acceptance of linguistic features to stretch their languages for modern usage. This need for action has lead to government-supported efforts, as for example in Malaysia with the formation of the Dewan Bahasa dan Pustaka, and in Indonesia with the formation of the Balai Bahasa Pusat, to plan additions to their language to deal with modern concepts and the growth of terminology for technology. Language planning efforts such as these are aimed at creating a sound linguistic basis for and political acceptance of language modernization. Efforts in these domains relate to the work of language planners and their plans. However, there is a third essential component[3] of language planning, or the implementation and evaluation of a language plan. While general guidelines are sometimes provided by planners as to what needs to be done, (e.g., see Ohannessian and Ansre 1979), the actual implementation and evaluation of planning are often left to the national educational system. Yet it is through planning, both through government schools and in many countries through church sponsored programmes such as those developed by the Summer Institute of Linguistics (SIL), that language permanence and social acceptance are supposed to develop. This analysis suggests that there may be a gap in the typical language modernization program.

Up to this point we have been talking as if language modernization involved only intra-language change or intra-language planning. However, most countries in the Pacific basin are multi-lingual, and there is a need for inter-language planning and development as well. Such development stems from at least three communication needs:

(1) for internal communication,

(2) for transmission of science and technology, and

(3) for international communication.

Robert Litteral (1979) has outlined a possible language schema to meet the communication needs for Papua New Guinea and has suggested the roles various languages might play in a proposed PNG educational system (see Figure 1). The proposal is based on a double transitional bilingual education approach (i.e., vernacular to Pidgin or Hiri Motu to English) in which all languages are maintained, at least at the primary school level.

Another example of the varying roles language can play in communication needs can be found in Malaysia. For internal communication a range of vernacular languages are still used by individuals and to supplement the regional media. However, one of the indigenous languages, Bahasa Malaysia, has become through an intensive language campaign, the major language, the lingua franca, for meeting national internal communication needs. In the schools native vernacular languages are not officially taught and increasingly all instruction is in Bahasa Malaysia. Some English, Mandarin and Tamil medium of instruction schools still exist while English is the major language taught as a subject in non-English medium schools. Bahasa Malaysia is also the language used in most University and technical school instruction, although many students do further studies overseas in English speaking institutions. Thus, Bahasa Malaysia and English share a joint role in the transmission of science and technology while English predominates as the language for international communication. In both examples different languages serve different purposes and are used in different domains.

Thus, the language problems in modernization for Pacific basin countries may be seen to stem from both a variety of communication needs (inter-language problems) and from the need for intra-language development. Many countries in this region are at the point of re-defining the roles colonial languages are to serve and are considering how to best develop local language resources. Given limited financial resources careful planning will be needed if a satisfactory balance is to be achieved between vernacular, national language, and international language development.

While language policy development is obviously critical to the language modernization process, so is proper implementation. Thoughtful planners and imaginative language plans are all for nought without effective implementation. Three critical factors in the Implementation process are teacher training and the development of good teaching materials, followed by an adequate scheme to evaluate program effectiveness. Thus, I would argue that a sound national program for language modernization must not only be based on an adequate survey of language needs, but must try to specify in realistic terms how these language needs can be met.

The purpose of the rest of this paper is to examine attempts which have been made to meet the need for good language based teaching materials. Both general references and specific examples from the Pacific basin region will be used to see what difficulties and possible solutions there are to the materials development need in the language modernization process.

## Is Materials Development Really a Problem?

The first question we must ask ourselves is, is materials development really a problem? Some authors have at least implied

that the issue is a relatively minor one which is easily solved.

> The problem of materials could be solved by training individuals to write books in their own language or in Pidgin or Hiri Motu. Many of the larger language groups already have alphabets and reading materials. They also have educated people who could write the books needed for a vernacular program. For languages where there are no alphabets or written materials, educated members of these groups could work with linguists and educators to prepare alphabets and educational materials in their languages (Gudschinsky 1974). Preliminary efforts to produce written materials in this way have proved successful (Litteral 1979:162).

Indeed descriptions of such training programs (e.g., Cates and Cates 1975; van Dyken 1977), the use of local authors in literacy schemes (e.g., Draper 1974), and the fact that the SIL here in Papua New Guinea use to (still does?) run an annual workshop to train people in designing primers gives some credence to idea that it is not too difficult to produce literacy materials. There is also comparable evidence to suggest that a range of vernacular literacy materials are also being produced world wide.

However, producing materials for basic literacy only begins to tackle the problem of language modernization unless the purpose of the program is merely to create a minimal transitional bilingual program to bridge to a major, in terms of materials available, second language. While it is essential to learn to read as part of the school program, reading is only a skill, albeit the underlying one, to unlock content. Schools attempt to teach in an efficient manner content areas which are set out to cover materials which have a particular scope and sequence. This I suggest requires materials to be designed on a different basis.

Interest and motivation are also essential both in the school and in reading programs. Many of the literacy materials referenced were created for adult literacy programs and were aimed at adult

interests. It is not an easy matter to transfer materials from one domain to another.

Thus, while native speaker produced materials is a starting point for planned language modernization, it is not a sufficient basis on which to develop an instruction program for schools. I would not accept it as adequate for my child's education. Nor do I believe that most Pacific basin countries ultimately want minimal transitional bilingual programs. The notion of needs discussed earlier suggests that languages must be further modernized to meet the range of demands placed on them within their domain(s). If this is not done, ultimately the languages will be displaced by others that can meet those needs.

Producing Literacy Materials

A variety of methods have been tried to produce vernacular literacy materials. We have already discussed briefly the success some linguists have had in getting adult native speakers to produce a variety of reading materials. However, McKinnon and Humphreys (1981:39) report that, in the main, teachers do not possess the ability to write suitable reading materials. Another approach which has been tried in Peru, rather unsuccessfully as it happens in terms of student learning outcomes, has been to get primary school children to make their own materials in the classroom (Weber and Solá 1980). However, Gray (1982) has had more success in getting Northern Territory Aboriginal primary children to develop "whole texts" through an oral approach. This strategy has lead to written ESL texts around which a reading program has been developed.

The most intensive program I know of to train native vernacular language literacy workers was begun in 1974 in Hawaii to train groups of Micronesian educators to use recently developed dictionaries and

grammars for the development of linguistically sound vernacular educational materials (Topping, 1975). This program progressed to the point where in 1977 the Pacific Area Languages Materials Development Center (PALM) was created and the production of literacy materials begun (Gibson 1979-1980). The development of good writers has taken a lot of time and is still an on going process. Today there are over 800 books in the 11 major Micronesian languages and in Samoan and Pilippino. While most of these books were written specifically for their vernacular language audiences, translation (being aware of the potential problems that this method introduces) has been used where stories or materials were appropriate across cultures. Although materials are being produced at different levels and across a range of subject matter, a complete program of study is not as yet being produced.

These few examples suggest that it is important for materials development to take place as part of a planned language modernization program so that individual efforts and resources can be used to their best effect. While individual teachers may make valiant efforts, the general aims of language learning will be frustrated until there is a planned attack on the materials development problem.

Once it has been decided on the best way to create literacy materials, the focus can then be shifted to how they will be produced. There are a number of references available in this area focusing on topics like the preparation of textbooks (McCullough 1974), designing primers (Gudschinsky 1973), adapting and writing language lessons (Stevick 1971), and adaptation in language teaching (Madsen and Bowen 1978).

The most relevant work for this discussion is that of McCullough (1974) and McKinnon and Humphreys (1971). They have used their

experiences in India with Hindi readers and Papua New Guinea with ESL readers to provide some general principles for and concrete examples of the development of a program of literacy materials. Stevick's (1971) work focuses too narrowly on the design of language teaching materials and is thus more appropriate to the language codification aspect of the language planning (Haugen 1983). Alano (1977) and Madsen and Bowen (1978) focus on the adaptation of materials which although an important technique is not usually a procedure available to languages in the process of modernization.

Let us briefly then summarize some of the important points these authors make.

First, the overall planning of the series or set of materials is essential. In curriculum terms we must define the scope and sequence of our work. It is here that the language planning skills of the sociolinguist in surveying children's interests, the psycholinguist in accounting for children's developmental needs, and the linguist in helping to determine appropriate structural and lexical content and sequence have a potentially important role to play. Where possible these roles should be interactive ones with the writers and with the consumers of the materials. Where interaction is not possible and discrepancies occur, research suggests that the overall editor is better to trust the consumers judgment than to err on the side of theory.

When looking for specific guidance for developing a program of materials McKinnon and Humphreys (1973) provide a list of eight constraints on the writing plan they followed to design the "Pacific Horizons" reading scheme. These may be briefly described as follows:

(a) Subject Matter Move from the known to the unknown but keep the subject matter worthwhile and interesting. (See McKinnon and Humphreys (1971), McCullough (1975), Russo and Harris (1982) for suggested topics.)

(b) Structure Too rigid structuring makes it impossible to produce natural, quality materials of interest to children. Many simple pieces of writing include grammatically difficult structures (i.e., the passive voice). Structure can be dealt with by controlling levels of forms of a structure and by restricting or expanding sentence length and complexity.

(c) Vocabulary Maintain rigid control of vocabulary during the first four years of the program, but allow it to expand rapidly thereafter. It is at this level where much of the new vocabulary would relate to "modern life and technology" (McKinnon and Humphreys, 1971:33). [At this point language modernization would become an increasingly important element in the development of literacy materials.]

(d) Sentence Length Set a maximum sentence length for various levels, but keep in mind that an effective writing style combines long and short sentences.

(e) Idiom Use idiom but avoid over use.

(f) Topic Length Topic lengths were suggested for various levels, but experience showed that length was not always related to level.

(g) Type Size The type size was specified and was gradually reduced in size. McCullough (1974) makes the point that type size must be related to script complexity (Hindi) and that there are a number of other factors which relate to legibility of print (Tinker, 1963).

(h) Illustration Some illustrations were used to raise interest

level and to orient the reader, but not to tell the story.

A number of other points also were considered. First, additional materials were needed to make the program work. These included things like teacher's manuals, exercises, and dictionary cards. There was also a need to empirically test the reading level of the materials to see that the program was well sequenced. The cloze procedure was used to do this. Finally, there was the problem of publication, or how to keep costs reasonable while getting a good quality product.

Propst (1973) provides a final warning for literacy curriculum developers. If your program is successful and children become avid readers then a demand will be generated for more extensive reading materials. In the light of this, it is important that language modernization programs also have long term language development plans.

Finally, we might ask if any advice is available for the individual writer about literacy materials development. Oller suggests "that story-telling techniques may be helpful in making ESL/EFL (and vernacular materials?) meaningful, comprehensible, recallable, and in a word learnable (1983:39)". The eleven principles Oller suggests and explains include:

I: Respect logic and causality

II: Be aware of plans and goals

III: Use surprise to motivate learning

IV: Operate with facts or believable fiction

V: Do not ask students to comprehend nonsense

VI: Find interesting characters

VII: Look for meaningful conflicts

VIII: Find material with action

IX: Ask questions

X: Cut the elephant (i.e., episode) into small bites

XI: Make Multiple meals out of the elephant (i.e., make multiple passes through the story)

(Oller, 1983:49-52)

This brief review of some of the issues in literacy materials development suggests that the issues and complex planned approach to the problem would help to make a difficult task easier.

Producing Content Area Materials[4]

Much of what has been written about materials development has had "literature" as a focus. However, if we intend to teach content in the vernacular as a modernized language would need to do, or indeed if we want texts in English which are culturally suitable for our students, we must also be able to produce content based materials.

According to Edwards, first and foremost curriculum developers must think of their writing as a total package designed to communicate. The use of a double page spread production grid on which all the elements (the words, illustrations, photographs, drawings, newspaper clippings, etc.) can be assembled will allow the developer to see how it will look to the reader and will ensure everything fits. This procedure emphasizes the importance of visual materials in content area materials development and means there must be a shift the literacy writers thinking about them.

Many of articles cited earlier on literacy have stressed the importance of motivation and interest. Creating aesthetically pleasing double page spreads which lead the student down the pages through the material is vital for creating interest in subject matter materials. Like writing, layout and design are skills that can be learned. Edwards indicates that after a 10 week course at RECSAM (at University Sains Malaysia, Penang), relatively inexperienced teachers were producing "curriculum units which (would) stand up well against any materials in the world in the area of design and communication (p.2)". The important point is that design is part of the writing process, not an after thought.

The writing process itself is very important and linguists like Malcolm Coulthard (1982) are beginning exploring ways text analysis can be applied to the teaching of reading and writing, especially as it relates to organization and simplification. The latter is a particularly difficult area for writers as they must strive for precision and correctness while avoiding over-formality, and must write simply for the intended audience while avoiding oversimplification and vagueness. For the ESL student in particular we must remember that content subjects are still mainly language courses (Smith 1980) and the language used must be written with this in mind.

The cloze procedure and readability formula are useful aids in determining what is at an appropriate level, but the ultimate test is the child. Where possible draft materials should be tried out with the intended reading audiences to gauge both interest and readability. Remember what is appealing and brilliant for an adult may be dull and uninteresting for a child. Finally, curriculum materials have a lot of instructions in them. A soft sell approach (i.e., "You may like to try doing ...") rather than a directive one (i.e., "Take out your note book and write ...") will make your materials "more friendly" and make the reader feel more involved in the process.

Where will the ideas for these materials come from? Once you have selected a topic, talk to other writers, specialists, teachers, practitioners in the field and competent professionals. Get out into the community. Do NOT look at existing curriculum materials until you've done your own thinking and research; They will only stiffle creativity. Remember, unless the text you are producing is significantly different from existing materials, there is little point in producing it. If there is currently no available text, why produce one which obviously needs to be replaced.

Finally, most curriculum materials contain activities. These must be trialed before they are included. Even if the writer is familiar with the activity, try it out, using local materials and write down in detail what you do. Then try it with someone else, preferably a potential consumer under the conditions in which it will be used. Only then include it if it works!

Curriculum development in content areas in vernacular languages will almost unavoidably involved in language modernization. Literary reading materials can be set within current experiences or the traditional domains of a language. However, content area curriculum materials development requires terminological development and possibly the use of structures and logic alien to the vernacular language and the culture in which it is set. In the language transfer sense, these are problems that ESL students face as well. As such this is an area where the skills of linguistic and language planners are needed to aid in language modernization.

## Discussion and Conclusions

In the preceding pages, I have argued "that production of learning materials is one of the most difficult and neglected areas of educational development (McKinnon and Humphreys 1971:9)". If you don't believe this is true, pick up a few standard English language school texts and see how terrible many of them are both in terms of content and design.

For our ESL or vernacular language materials we haven't the time, the money or the expertise to waste on producing poorly planned programs which contain poorly written or designed materials. Since the current low state of funding is unlikely to change overnight, I believe we must strive for planned language modernization programs which seriously consider the problems of quality materials development and staff

training as part of the overall planning process.

We can contribute and help to better understand the whole language modernization process in two ways. First, when we undertake planned language modernization activities, we should monitor our actions to see what changes seem to result from them. Second, we can look for recent documentable examples of language modernization and then try to analyze them and apply the results to other language modernization projects. I hope this paper will help to stimulate some discussion towards these ends.

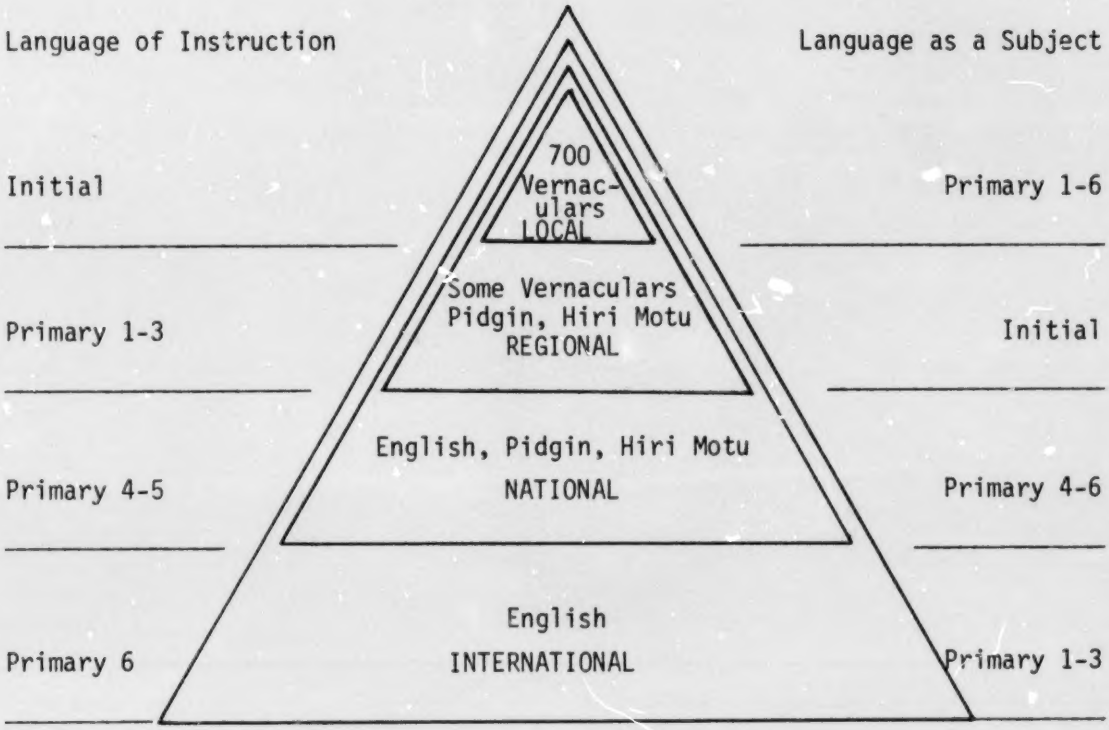


Figure 1. Communicative Networks of Papua New Guinea in relation to Proposed Roles for Languages in the Primary School System (Based on Litteral 1979:156,161)

## FOOTNOTES

[1]Paper presented at the 17th Language Society of Papua New Guinea Conference, University of Papua New Guinea, Port Moresby, July 5, 1983. This research was funded in part by a Special Research Grant (SRG-61) from James Cook University.

[2]A number of ideas on which this section is based come from proposal materials for the "Modernization and Language Development Project" developed and co-ordinated by Björn H. Jernudd, East-West Culture Learning Institute, Honolulu, Hawaii.

[3]For a discussion of the elements involved in the language planning process see Baldauf (1982), Rubin (1979) and Rubin (1981). For another approach see Haugen (1983 p.275).

[4]Based on an unpublished paper entitled "Producing your own curriculum units" and comments by John Edwards who worked for three years at RECSAM at the University Sains Malaysia in Penang and for three years with ASEP developing Science teaching materials.

## REFERENCES


Alano, A.C. 1977. Collect, adapt and use varied reading materials. The Reading Teacher 30 (8): 875-879.

Baldauf, R.B., Jr. 1982. The language situation in American Samoa: Planners, Plans, and Planning. Language Planning Newsletter 8 (1): 1-6.

Benton, R.A. 1981. The Two Samoas. In The Flight of the Amokura. Wellington: New Zealand Council for Educational Research.

Bronson, V. 1968. A System Manual for The Staff and Faculty. Pago Pago: Department of Education.

Cates, L.E. and Cates, A.F. 1975. Authors for Papua New Guinea. In K.A. McElhanon (ed.) Tok Pisin I Go We? Kivung Special Publication No.1 Ukarumpa, PNG., pp.134-137.

Coulthard, M. 1982. Text analysis and its application to the teaching of reading and writing. Paper presented at the 7th Applied Linguistics Association of Australia. Perth, November 23.

Department of Education. 1979. A Proposal for English Language Arts (ESL) in Grades 1-8. Pago Pago.

Department of Education. 1980. D.O.E. Instructional Program. Pago Pago: Division of Instructional Development.

Draper, S. 1974. Adult literacy for the Papua New Guinea villager. Papua New Guinea Journal of Education. 10 (2): 12-17.

Gibson, R.E. 1979-80. Putting the mother tongue back into the classroom: ESL and Bilingual Education in Micronesia. NABE Journal 4 (2): 49-58.

Gray, B. 1982. Developing the language skills of aboriginal children in the classroom. Paper presented at 7th Association of Applied Linguistics of Australia Conference, Perth, November 25.

Gudschinsky, S.C. 1973. A Manual of Literacy for Preliterate Peoples. Ukarumpa: Summer Institute of Linguistics.

Gudschinsky, S. 1974. Vernacular literacy as a base for formal education. Eighth Waigani Seminar. Port Moresby. May.

Haugen, E. 1983. The implementation of corpus planning: Theory and practice. In J. Cobarrubias and J.A. Fishman (Eds.), Progress in Language Planning. Berlin: Mouton, p.269-289.

Kneubuhl, J. and Evans, B. 1979. A Proposal for a New Samoan Language Arts Program, Grades 1-12. Pago Pago: Department of Education.

Litteral, R. 1979. A proposal for the use of pidgin in Papua New Guinea's educational system. In J.B. Pride (ed.), Socio-Linguistic Aspects of Language Learning and Teaching. London: Oxford University Press, pp.152-163.

McCullough, C.M. 1974. Preparation of Textbooks in the Mother Tongue. Newark, Delaware: International Reading Association.

McKinnon, K.R. and Humphreys, J. 1971. Preparation of Curriculum Materials in Developing Countries: A Case Study. Port Moresby: Department of Education.

Madsen, H.S. and J.D. Bowen 1978. Adaptation in Language Teaching. Rowley, Mass.: Newbury House.

National Association for Asian and Pacific American Education. 1978 Education Concerns of Asian and Pacific Americans. Conference Report. US Office of Education.

Ohannessian, S. and Ansre, G. 1979. Some reflections on the educational use of sociolinguistic surveys. In J.B. Pride (ed.), Socio-linguistic Aspects of Language Learning and Teaching. London: Oxford University Press, pp.57-70.

Oller, J.W., Jr. 1983. Story writing principles and ESL teaching. TESOL Quarterly. 17 (1): 39-53.

Propst, I.K., Jr. 1975. A serious deficiency in the SPC English language program. South Pacific Bulletin. No.2.

Rubin, J. 1979. Concerning Language Planning in 1979. AILA Bulletin. No.1 (25): 1-6.

Rubin, J. 1981. Spanish language planning in the United States. Paper presented at El Espanol en Estados Unidos Conference. Chicago. October 3: 28pp.

Russo, C. and Baldauf, R.B. Jr. 1983. Language development without planning: A case study of tribal Aborigines in the Northern Territory, Australia. Unpublished paper.

Russo, C. and Harris, S.G. 1982. Developing a written Aboriginal literature. In R. Lipscombe and D. Burns (Eds.), Aboriginal Literacy: Bridging the Gap. Adelaide: Australian Reading Association.

Schramm, W., Nelson, L.M. and Betham, M.T. 1981. Bold Experiment: The Story of Educational Television in American Samoa. Stanford: Stanford University Press.

Smith, A.C. 1980. Eighty percent language, twenty percent content: Teaching the core Canadian history course to ESL students. TESL Talk. 11 (2): 47-53.

Stevick, E.W. 1971. Adapting and Writing Language Lessons. Washington, D.C.: FSI, Department of State.

Tinker, M.A. 1963. Legibility of Print. Ames, Iowa: Iowa State University Press.

Thomas, R.M. 1974. A pattern for teaching indigenous culture. Comparative Education. 10 (1): 49-55.

van Dyken, J. 1977. Towards readable writing. Literacy Work. 6 (3): 17-34.

Weber, R-M. and Solá, D.F. 1980. Developing instructional materials for a bilingual education program in the Peruvian Andes. The Reading Teacher. 34 (3): 296-302.